



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

D2939-1

Job Sheet 179296



Part No: D2939-1

Job Qty: 4 ea

Part Name: Saddle LH In, 206



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/16/18

Job Tracking No:

Due Date: 6/29/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV C IPP: B 00.06.26 New DWG rev (mpp 2069) EC IPP Rev:C As per Rev C 07-03-19 JLM

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation              | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off      |
|-------|------------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|---------------|
|       |                        |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |               |
| 90    | Start up Operation     | 4 Ea  | 6/29/18    | 6/29/18  | 0.00      | 0.00    | Start Up Machining-1  |           | SBL 18/08/05  |
| 100   | CNC Vertical Machining | 4 pcs | 6/29/18    | 6/29/18  | 0.50      | 4.00    | HAAS1-2               |           | D.H. 18/08/07 |
| 110   | Mill Conv              | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 1.87    | Mill Conv 1           |           |               |
| 120   | QC                     | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 0.00    | QC1                   |           |               |
| 130   | QC                     | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 0.00    | QC8 Machining-1       |           | monk 18/08/07 |
| 140   | HandFinish             | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 0.22    | HandFinish1           |           | D.R 18/08/00  |
| 150   | Powdercoat             | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 0.14    | Powdercoat1           |           | 18-08-13      |
| 160   | QC                     | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 0.00    | QC3                   |           | 18-08-13      |
| 170   | Packaging              | 4 pcs | 6/29/18    | 6/29/18  | 0.00      | 0.00    | Packaging3-1          | 51395     | AUG 16 2018   |
| 180   | QC21-SA                | 4 Ea  | 6/29/18    | 6/29/18  | 0.00      | 0.00    | QC21                  |           | AUG 16 2018   |

Part Op 100 - Program part number and batch number. 2-Machine Step No 1 of Folio and visually inspect as per dwg D2939 & Descriptions: attached Dimension Sheet

110 - Machine Keyway and inspect per attached dimension sheet

120 - Inspect on CMM as per folio CMMA015.

150 - START TIME: 8:00pm OVEN TEMP: 320°F 8:30pm

### Job BOM

| Part / Item | Component Name | Quantity    | Operation             | Container          |
|-------------|----------------|-------------|-----------------------|--------------------|
| D6101-001   | Saddle Billet  | 4 Ea (1 ea) | 90-Start up Operation | 5038650<br>5099300 |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | D6101-001      | 4        | 77        | 0         |

### Part Specifications

Specifications could not be found.



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**Container No: S099301**



**Part: D2939-1**

**Job No: 179296**

**Serial No/Batch: S099301**

**Revision:**

**Inspector:**

**Exp Date:**

**Instructions: Various STC's**

**Date: 08/05/18**



|                                                    |                             |
|----------------------------------------------------|-----------------------------|
| <b>DART AEROSPACE LTD</b>                          | <b>Work Order:</b> 179296   |
| <b>Description:</b> 206 Saddle, Inboard, Left side | <b>Part Number:</b> D2939-1 |
| <b>Inspection Dwg:</b> D2939 Rev. C                | <b>Page 1 of 1</b>          |

Inspect dimensions highlighted on inspection sheet drawing D2939 Rev. C and record below:

|               |       |       |                | Recorded Actual Dimensions |       |       |       |    |      |
|---------------|-------|-------|----------------|----------------------------|-------|-------|-------|----|------|
| Dim           | Min   | Max   | Go/No Go Gauge | 1                          | 2     | 3     | 4     | By | Date |
| A             | 0.100 | 0.140 |                | .115                       | .116  | .116  | .115  |    |      |
| B             | 0.100 | 0.140 |                | .114                       | .114  | .115  | .115  |    |      |
| C             | 0.100 | 0.140 |                | .105                       | .105  | .105  | 0.103 |    |      |
| D             | 0.210 | 0.230 |                | .220                       | .219  | .219  | .220  |    |      |
| E             | 1.245 | 1.255 |                | 1.250                      | 1.250 | 1.250 | 1.250 |    |      |
| F             | 1.245 | 1.255 |                | 1.250                      | 1.250 | 1.250 | 1.25  |    |      |
| G             | 2.495 | 2.505 |                | 2.500                      | 2.500 | 2.50  | 2.50  |    |      |
| H             | 0.510 | 0.515 |                | .510                       | .510  | 0.510 | 0.511 |    |      |
| I             | 1.572 | 1.582 |                | 1.577                      | 1.577 | 1.577 | 1.577 |    |      |
| J             | 2.495 | 2.505 |                | 2.500                      | 2.500 | 2.500 | 2.500 |    |      |
| K             | 0.257 | 0.262 |                | .257                       | .257  | .257  | .257  |    |      |
| L             | 0.312 | 0.317 |                | .313                       | .313  | .313  | 0.313 |    |      |
| M             | 0.235 | 0.240 |                | .239                       | .238  | 0.238 | 0.238 |    |      |
| N             | 0.100 | 0.140 |                | .121                       | .120  | .120  | .120  |    |      |
| O             | 0.540 | 0.560 |                | .548                       | .551  | .550  | .550  |    |      |
| P             | 0.490 | 0.510 |                | .498                       | .499  | .499  | 0.503 |    |      |
| Q             | 3.715 | 3.725 |                | 3.720                      | 3.720 | 3.720 | 3.720 |    |      |
| R             | 2.720 | 2.760 |                | 2.741                      | 2.740 | 2.740 | 2.740 |    |      |
| S             | 0.240 | 0.270 |                | .249                       | .249  | .250  | .250  |    |      |
| T             | 0.100 | 0.180 |                | .133                       | .135  | .135  | .133  |    |      |
| U             | 1.625 | 1.635 |                | 1.630                      | 1.630 | 1.630 | 1.630 |    |      |
| V             | 1.362 | 1.372 |                | 1.367                      | 1.367 | 1.367 | 1.367 |    |      |
| W             | 0.316 | 0.321 |                | .316                       | .316  | .316  | .316  |    |      |
| X             | 1.250 | 1.270 |                | 1.260                      | 1.260 | 1.260 | 1.260 |    |      |
| Y             | 1.565 | 1.585 | DT8695 A/B     | 1.575                      | 1.575 | 1.575 | 1.575 |    |      |
| Z             | 0.178 | 0.198 |                | .188                       | .188  | .188  | .188  |    |      |
| AA            |       |       |                |                            |       |       |       |    |      |
| AB            |       |       |                |                            |       |       |       |    |      |
| AC            |       |       |                |                            |       |       |       |    |      |
| AD            |       |       |                |                            |       |       |       |    |      |
| AE            |       |       |                |                            |       |       |       |    |      |
| AF            |       |       |                |                            |       |       |       |    |      |
| AG            |       |       |                |                            |       |       |       |    |      |
| AH            |       |       |                |                            |       |       |       |    |      |
| Accept/Reject |       |       |                |                            |       |       |       |    |      |

|                            |
|----------------------------|
| Measured by: <b>DAS 57</b> |
| Date: <b>9-89 18/08/05</b> |

|                         |
|-------------------------|
| Audited by: <b>mm L</b> |
| Date: <b>18/08/05</b>   |

| Rev | Date     | Change                                                        | Revised by | Approved |
|-----|----------|---------------------------------------------------------------|------------|----------|
| A   |          | New Issue                                                     | RF         |          |
| B   | 02.12.12 | Reformat; Added Dim. X-Y, DT8683, DT8686, DT8690 & DT8695 A/B | KJ/RF      |          |
| C   | 07.03.21 | Revised per drawing revision C                                | KJ/JLM     |          |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

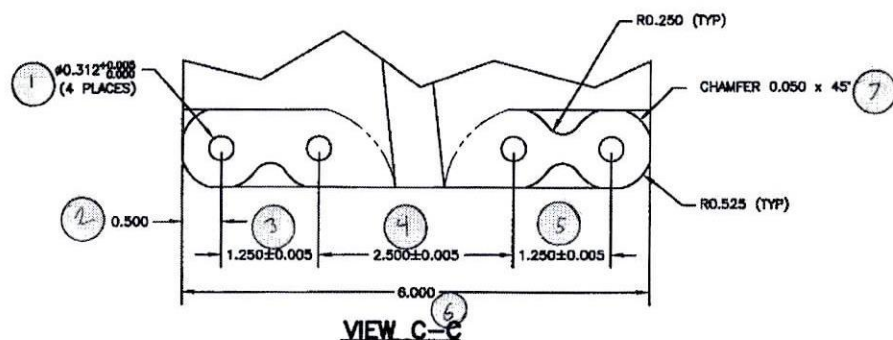
Work Order update only ☐

|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                   |  |  |
|--------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-------------------------------------------------------------------------------------------------------------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |  |  |                                                                                                                   |  |  |
| Date : _____                                                 |  | Step #: _____                                                                                                                                                                      |  | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  | <b>MRB (QS1042) Approval</b><br><br><div style="border: 1px solid black; height: 150px; margin-top: 10px;"></div> |  |  |
| <b>Description Work Order Deviation</b>                      |  |                                                                                                                                                                                    |  | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  | <b>Completed By</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  | <b>Lead hand / Supervisor Approval Verification</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |                                                                                                                   |  |  |
|                                                              |  |                                                                                                                                                                                    |  | <b>QC / QA Coordinator Approval</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |                                                                                                                   |  |  |

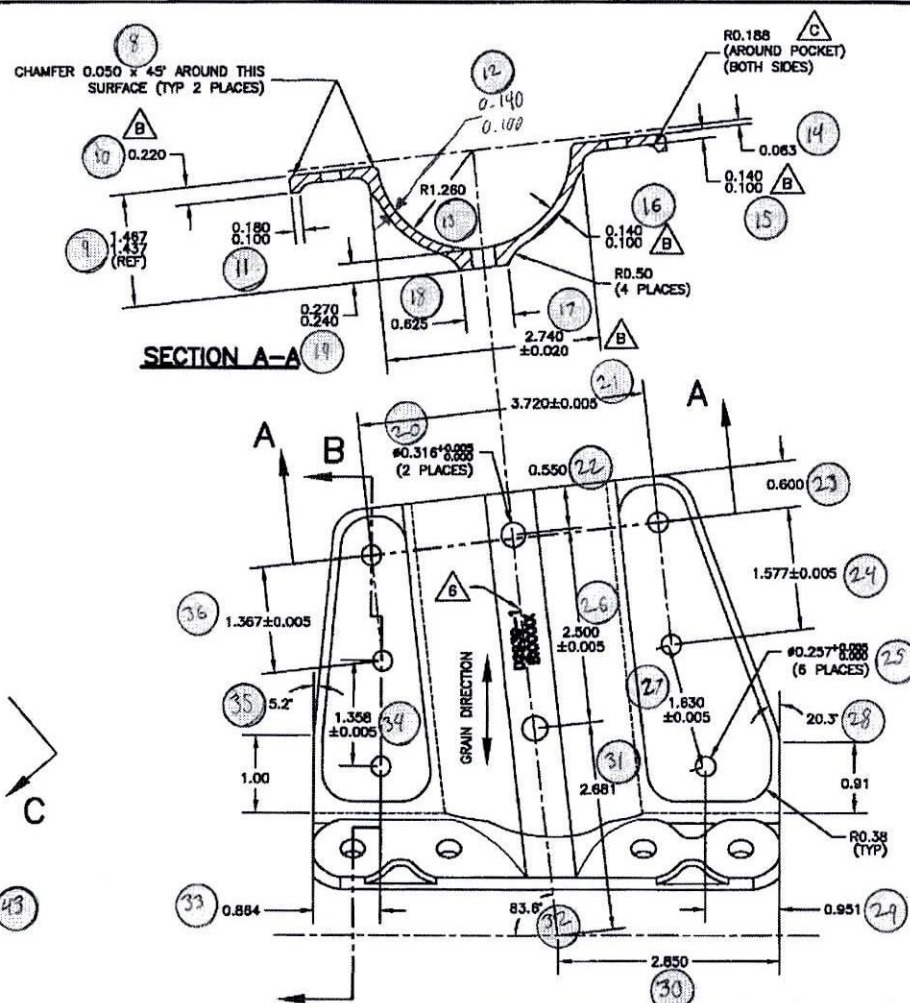
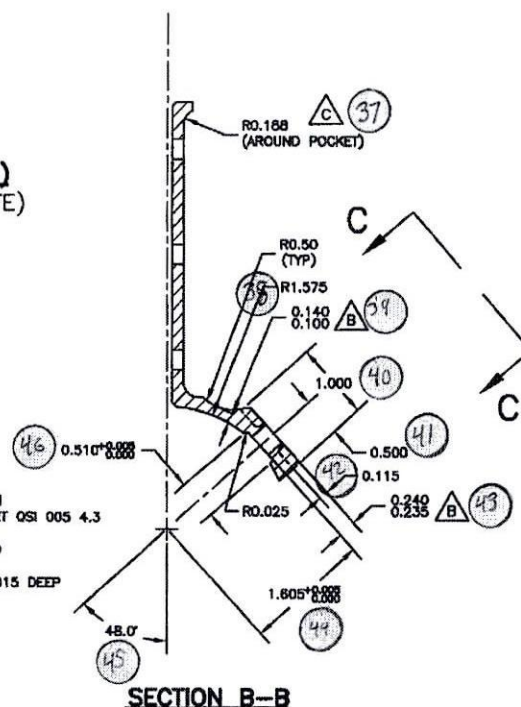
| Root Cause                                  |                                                |                                                 |                                                            | FAULT CATEGORY                                 |                                               |  |  |
|---------------------------------------------|------------------------------------------------|-------------------------------------------------|------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|--|--|
| Environment <input type="checkbox"/>        | <input type="checkbox"/> No Re-verification    | Pressure/Forced <input type="checkbox"/>        | <input type="checkbox"/> Temperature/Cure                  | <input type="checkbox"/> Power Loss/Surge      | <input type="checkbox"/> Positioned Wrong     |  |  |
| Design <input type="checkbox"/>             | <input type="checkbox"/> Operator              | Bending <input type="checkbox"/>                | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>         | Outside Dimensions <input type="checkbox"/>   |  |  |
| Doc/Data <input type="checkbox"/>           | <input type="checkbox"/> Offset/Setup          | Centre Not Concentric <input type="checkbox"/>  | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                 | Over/Under tolerance <input type="checkbox"/> |  |  |
| Equip/Tooling <input type="checkbox"/>      | <input type="checkbox"/> Supplier              | Cracks <input type="checkbox"/>                 | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                  | Part Incorrect <input type="checkbox"/>       |  |  |
| Handling/Pre <input type="checkbox"/>       | <input type="checkbox"/> Training              | Crimp/Kink/Ripple/Wave <input type="checkbox"/> | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>    | Part Lost/Missing <input type="checkbox"/>    |  |  |
| Material <input type="checkbox"/>           | <input type="checkbox"/> Use for Testing       | Cuffs <input type="checkbox"/>                  | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>       | Part Moved <input type="checkbox"/>           |  |  |
| Internal Transport <input type="checkbox"/> | <input type="checkbox"/> Poor Information      | Crushing <input type="checkbox"/>               | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>               | Drawing <input type="checkbox"/>              |  |  |
| Tribal Knowledge <input type="checkbox"/>   | <input type="checkbox"/> Rushing               | Heat Treat <input type="checkbox"/>             | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>            | Finish <input type="checkbox"/>               |  |  |
| LOA <input type="checkbox"/>                | <input type="checkbox"/> Product Improvement   | Wave/Twist in Tube <input type="checkbox"/>     | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>          | Misread <input type="checkbox"/>              |  |  |
| Substation <input type="checkbox"/>         | <input type="checkbox"/> Process Improvement   | Marks/Chatter <input type="checkbox"/>          | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/>     |  |  |
| Past Expiry Date <input type="checkbox"/>   | <input type="checkbox"/> Manufacturing Process | <b>OTHER :</b> _____                            |                                                            |                                                |                                               |  |  |
| Misidentified <input type="checkbox"/>      | <input type="checkbox"/> Past Due              |                                                 |                                                            |                                                |                                               |  |  |





**D2939-1 LH SADDLE (SHOWN)**  
**D2939-2 RH SADDLE (OPPOSITE)**

- NOTES:**
- 1) MATERIAL: ALUMINUM 7075-T7351 (QQ-A-250/12)  
 (MAKE FROM D6101-001 SADDLE BILLET, 7075)
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
 POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
  - 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
  - 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 5) ALL DIMENSIONS ARE INCHES
  - 6) ENGRAVE PART AND BATCH NUMBER IN THIS AREA 0.010 TO 0.015 DEEP



|         |          |                                                |
|---------|----------|------------------------------------------------|
| C       | 06.11.09 | RO.188 WAS RO.30 TO RO.25                      |
| B       | 00.05.29 | CHANGED DEOMETRY AND MATERIAL                  |
| A       | 99.11.12 | NEW ISSUE                                      |
| DESIGN  | 4        | DRAWN BY CB                                    |
| CHECKED | PH       | APPROVED                                       |
| DATE    | 06.11.09 | TITLE                                          |
|         |          | DART DART AEROSPACE USA, INC.<br>BELLVILLE, WA |
|         |          | DRAWING NO. D2939                              |
|         |          | REV. C                                         |
|         |          | SHEET 1 OF 1                                   |
|         |          | SCALE                                          |
|         |          | SADDLE INSIDE                                  |
|         |          | 2-3                                            |

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 DART AEROSPACE USA, INC.

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MRB (QSI042) Approval                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Completed By                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Lead hand / Supervisor Approval Verification                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | QC / QA Coordinator Approval                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Environment <input type="checkbox"/><br>Design <input type="checkbox"/><br>Doc/Data <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Pre <input type="checkbox"/><br>Material <input type="checkbox"/><br>Internal Transport <input type="checkbox"/><br>Tribal Knowledge <input type="checkbox"/><br>LOA <input type="checkbox"/><br>Substation <input type="checkbox"/><br>Past Expiry Date <input type="checkbox"/><br>Misidentified <input type="checkbox"/> | No Re-verification <input type="checkbox"/><br>Operator <input type="checkbox"/><br>Offset/Setup <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Training <input type="checkbox"/><br>Use for Testing <input type="checkbox"/><br>Poor Information <input type="checkbox"/><br>Rushing <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Past Due <input type="checkbox"/> | Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Centre Not Concentric <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave <input type="checkbox"/><br>Cuffs <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Heat Treat <input type="checkbox"/><br>Wave/Twist in Tube <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Temperature/Cure <input type="checkbox"/><br>Set-up <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Inspection Incomplete/Unqualified <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Countersink <input type="checkbox"/><br>Cut Too Short <input type="checkbox"/><br>Instructions Incomplete/Unclear <input type="checkbox"/><br>Drill Holes <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set <input type="checkbox"/><br>Misabeled <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/><br>Outside Dimensions <input type="checkbox"/><br>Over/Under tolerance <input type="checkbox"/><br>Part Incorrect <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Part Moved <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Misread <input type="checkbox"/><br>Turning Sequence <input type="checkbox"/> |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                   |